

## EXERCISE BICYCLE

### BACKGROUND OF THE INVENTION

#### 1. FIELD OF THE INVENTION

This invention relates to an exercise bicycle, and in particular, to an  
5 exercise bicycle capable of providing a whole body exercising effect and  
enhancing riding amusement to the rider.

#### 2. DESCRIPTION OF THE PRIOR ART

Bicycles played important roles on our societies. In Taiwan, for example,  
10 the social modes changed from an agricultural generation to an industrial  
generation and toward a commercial generation. Bicycles were used as means of  
transport in the early stages. Nowadays, with increasing development of  
technologies, bicycles are also used as means of leisure and exercise. On the  
other hand, bicycles were previously made cumbersome, thick and solid.  
15 However, today's bicycles are light and streamlined and have various shapes for  
complying with different purposes, such as mountain bicycles, road bicycles,  
long-distance bicycles, foldable bicycles, etc. Furthermore, in views of  
environmental protection and health care, bicycles attract most people because no  
fuels are required and thus no pollutants are generated. However, any forms of  
20 bicycles are monotonous and conservative. When the conventional bicycles are  
used for the exercise and leisure purpose, only the feet of the riders are exercisable.  
In other words, the conventional bicycles fail to provide the whole body  
exercising effect to the riders.

Accordingly, the above-described prior art product is not a perfect design  
25 and has still many disadvantages to be solved.

In views of the above-described disadvantages resulted from the conventional product, the applicant keeps on carving unflaggingly to develop an exercise bicycle according to the present invention through wholehearted experience and research.

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## SUMMARY OF THE INVENTION

An object of the invention is to provide an exercise bicycle capable of providing a whole body exercising effect to the rider.

Another object of the invention is to provide an exercise bicycle capable of enhancing riding amusement to the rider.

10 Another still object of the invention is to provide an exercise bicycle capable of providing a riding-horse effect.

Another still object of the invention is to provide an exercise bicycle having advantages of simple structure, easy operation, etc.

The above objects of the present invention can be achieved by using an  
15 exercise bicycle. The exercise bicycle comprises a bicycle main body. A shock absorber is provided under the seat cushion of the bicycle main body. The bicycle main body is also provided with two elliptical wheels, wherein the front and the rear wheels are either arranged in parallel to each other, or arranged perpendicularly to each other. When the elliptical wheels are arranged in parallel to each other, the elliptical wheels are synchronously driven such that the rider will alternately rise up and fall down during the riding operations. Meanwhile,  
20 the shock absorber under the seat cushion also rises up and falls down. Whereas, when the elliptical wheels are arranged perpendicularly to each other, the elliptical wheels are perpendicularly driven such that the rider will move wavily during the riding operations. Meanwhile, the shock absorber under the seat cushion will  
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swing increasingly. During the riding operations, in case of emergence, the rider can tread on the footrests in reverse direction so as to stop the bicycle. Regardless of arrangement of the elliptical wheels, during the riding operations, the rider can feel a riding-horse effect so as to enhance riding amusement and provide a whole body exercising effect to the rider. Furthermore, the shock absorber under the seat cushion is advantageous for increasing comfort to the rider.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

The drawings disclose an illustrative embodiment of the present invention which serves to exemplify the various advantages and objects hereof, and are as follows:

Fig. 1 is a schematic view illustrating an exercise bicycle provided by the present invention, wherein the elliptical wheels thereof are arranged in parallel with each other;

Fig. 2 is a schematic view illustrating an exercise bicycle according an embodiment of the present invention, wherein the elliptical wheels thereof are arranged in parallel with each other;

Fig. 3 is a schematic view illustrating an exercise bicycle provided by the present invention, wherein the elliptical wheels thereof are arranged perpendicularly to each other; and

Fig. 4 is a schematic view illustrating an exercise bicycle an embodiment of the present invention, wherein the elliptical wheels thereof are arranged perpendicularly to each other.

### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

Referring to Figs. 1 and 3, which are schematic views illustrating an exercise bicycle provided by the present invention, wherein the elliptical wheels thereof are either arranged in parallel and perpendicularly to each other, respectively. The exercise bicycle comprises a bicycle main body 1. A shock absorber 12 is provided under the seat cushion 11 of the bicycle main body 1, wherein the shock absorber 12 is formed of a spring. The bicycle main body 1 is also provided with two elliptical wheels 13, wherein the front and the rear wheels 13 are either arranged in parallel to each other, or arranged perpendicularly to each other.

Referring to Figs. 2 and 4, which are schematic views illustrating an exercise bicycle provided by the present invention, wherein the elliptical wheels thereof are either arranged in parallel and perpendicularly to each other, respectively. When the elliptical wheels 13 are arranged in parallel to each other, the elliptical wheels 13 are synchronously driven such that the rider will alternately rise up and fall down during the riding operations. Meanwhile, the shock absorber 12 under the seat cushion 11 also rises up and falls down. Whereas, when the elliptical wheels 13 are arranged perpendicularly to each other, the elliptical wheels 13 are perpendicularly driven such that the rider will move wavily during the riding operations. Meanwhile, the shock absorber 12 under the seat cushion 11 will swing increasingly. During the riding operations, in case of emergence, the rider can tread on the footrests 14 in reverse direction so as to stop the bicycle. Regardless of arrangement of the elliptical wheels 13, during the riding operations, the rider requires strenuous effort to drive the elliptical wheels 13 when the elliptical wheels 13 are arranged in parallel with each other. The driven elliptical wheels 13 are then arranged perpendicularly to each other and spontaneously overturned forward due to such arrangement. Therefore, a relatively larger force and a relatively smaller force are alternately required for

riding this bicycle, and the rider can feel a whole body exercising effect and a riding-horse effect due to the rising-up/falling-down and wavily moving states, which can enhance riding amusement to the rider. Furthermore, the shock absorber 12 under the seat cushion 11 is advantageous for increasing comfort to  
5 the rider.

The above-mentioned main body of the exercise bicycle can be a main body of an electrical fuel bicycle or other bicycles using fuels such as gasoline, natural gas, solar power, etc. The specific arrangement of the elliptical wheels can largely enhance riding amusement to the rider.

10 The exercise bicycle provided by the present invention, when comparing with other previous conventional technologies, has following advantages:

1. The specific arrangement of the elliptical wheels can provide a whole body exercising effect to the rider.
2. The specific arrangement of the elliptical wheels can largely enhance  
15 riding amusement to the rider.
3. The specific arrangement of the elliptical wheels can provide a riding-horse effect to the rider.

Many changes and modifications in the above described embodiment of the invention can, of course, be carried out without departing from the scope thereof.  
20 Accordingly, to promote the progress in science and the useful arts, the invention is disclosed and is intended to be limited only by the scope of the appended claims.